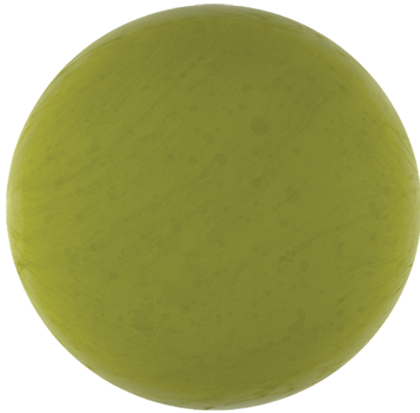




Dissolvable Ball Sealer - High Temperature



Optimize Fluid Diversion and Enhance Stimulations

The field-proven PS-HT dissolvable ball sealer temporarily seals perforations that are accepting the most fluid.

Applications

- Plug open perforations for cleaning scale and paraffin
- Improve stimulation by diverting fluid to lower-permeability zones
- Help manage fluid in hydraulic fracturing stages and refracs

Features

- Compatible with standard stimulation fluid additives
- Dissolves in freshwater, brine, and acid
- Differential pressure tested with fluid up to 4000 psi [27.6 Mpa] and 300 °F [178 °C]

Benefits

- Will not stick in perforations like rubber coated ball sealers
- Quickly dissolves in hours after stimulation or fracturing stages
- Completely biodegradable material

Properties

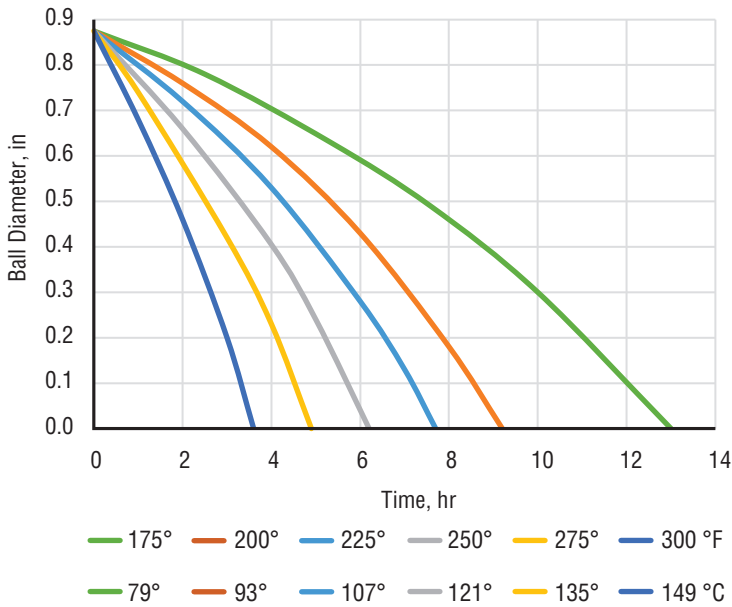
Temperature range	175 - 300 °F [93 - 149 °C]
Appearance	Yellow
Specific gravity	1.20 +/- 0.05
Solubility	Compatible with freshwater, brine, and acid; incompatible with nonpolar solvents, such as diesel, benzene, xylene, kerosene, toluene
pH fluids	0–12
Storage	Keep product away from moisture; do not expose to temperature higher than 130 °F [54 °C]
Size	0.50 in [13 mm]; 0.625 in [16 mm]; 0.875 in [22 mm]; 1.0 in [25 mm]; 1.25 in [32 mm]

Please soak the PS-HT ball sealer in mineral oil, which prevents clumping, before inserting into the gun launcher.

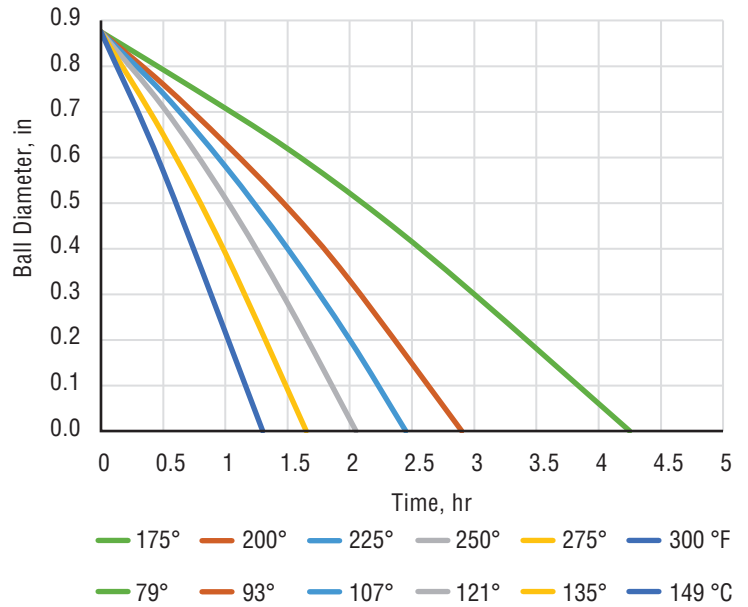


Dissolvability Rates vs. Time

Dissolvability Curves in **2% Potassium Chloride (KCL)**
PS-HT 0.875 in [22 mm]



Dissolvability Curves in **15% Hydrochloric Acid (HCl)**
PS-HT 0.875 in [22 mm]



Perforation Sealing Differential Pressure (ΔP) Sealing Time in Fluid vs. Temperature

Temp °F [°C]	ΔP Sealing Time* (Hours)			
	2% KCL		15% HCL	
	500 psi [3.45 Mpa]	1000 psi [6.9 Mpa]	500 psi [3.45 Mpa]	1000 psi [6.9 Mpa]
175 [79]	7.6	6.3	2.1	1.8
200 [93]	5.5	4.4	1.5	1.3
225 [107]	4.2	3.4	1.2	1.0
250 [121]	3.2	2.7	1.0	0.9
275 [135]	2.5	2.0	0.8	0.7
300 [178]	1.8	1.4	0.7	0.6

* Time based on 0.875 in [22 mm] ball diameter capable of sealing a perforation size of 0.40 in [10 mm]

For more information about our PS-HT high-temperature, dissolvable ball sealer that increases fluid efficiency, please **call us: 844-277-7373** or **email: csr@perfsealers.com**.

Perf Sealers believes that the information in this product data sheet is an accurate description of the typical uses of oil and gas completions. Perf Sealers, however, disclaims any liability for incidental or consequential damages, which may result from the use of the product that is beyond its control. Therefore, it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficiency, and safety.